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■ Study and Work Experience

Dong Hou, male, born in 1989, associate professor. He received his bachelor's degree from Northeast University in 2011, his master's degree from Northeast University in 2013, and his doctor's degree from Northeast University in 2017. From 2017 to 2020, he is engaged in post doctoral work in Soochow University. In 2020, he was employed as associate professor of Iron and Steel Institute of Soochow University. He has published 16 papers in core journals, such as *Metallurgical and Materials Transactions B*, *Ceramics International*, *Journal of Sustainable Metallurgy*, *ISIJ International*, *Ironmaking & Steelmaking*, *Journal of Northeast University*, *Journal of Engineering Science*, etc.

■ Main Research Directions

1. Special steels and ultra pure melting technology
2. Electroslag Metallurgy
3. Metallurgical Reactions
4. Clean steel and inclusion control

■ Research projects

1. Study on multiphase reaction kinetics and ingot controlling during electroslag remelting of superalloys containing Al and Ti. National Natural Science Foundation of China (51804205)
2. Investigation on multiphase reactions during electroslag remelting of superalloys containing Al and Ti. China Postdoctoral Science Foundation (7131704818)
3. Investigation on slag-metal multiphase reactions during electroslag remelting of superalloys. General project Science Foundation of Jiangsu Province (18KJB450002)
4. Basic research on new EAF steelmaking process. National Natural Science Foundation of China (51734003)

■ Representative article

1. Kinetic study on alloying element transfer during an electroslag remelting process, *Metallurgical and Materials Transactions B*, 2019, 50(6): 3088-3102.
2. The Design of Slag and Electroslag Remelting Production Technology of Steel Containing Zirconium, *Journal of Sustainable Metallurgy*, 2020, accept.

3. Kinetic analysis of spinel formation from powder compaction of magnesia and alumina, *Ceramics International*, 2020, 46(3): 2853-2861.
4. Mass transfer model of desulfurization in the electroslag remelting process, *Metallurgical and Materials Transactions B*, 2017, 48(3): 1885-1897.
5. Effect of slag composition on the oxidation kinetics of alloying elements during electroslag remelting of stainless steel: Part-1 mass-transfer model, *ISIJ International*, 2017, 57(8): 1400-1409.
6. Effect of slag composition on the oxidation kinetics of alloying elements during electroslag remelting of stainless steel: Part-2 control of titanium and aluminum content, *ISIJ International*, 2017, 57(8): 1410-1419.
7. Thermodynamic design of electroslag remelting slag for high titanium and low aluminium stainless steel based on IMCT, *Ironmaking & Steelmaking*, 2016, 43(7): 517-525.
8. Investigation on Slag-Metal-Inclusion Multiphase Reactions During Electroslag Remelting of Die Steel, *Metallurgical and Materials Transactions B*, 2020, Accepted.
9. Behavior of alloying elements during drawing-ingot-type electroslag remelting of stainless steel containing titanium, *ISIJ International*, 2018, 58(5): 876-885.

■ Invention patent

1. A kind of alloy containing zirconium and the product method of the alloy containing zirconium. Invention patent. ZL 2019 1 0497566.2
2. A steel-making device by using induction furnace and liquid casting electroslag furnace. Invention patent. ZL 2018 1 1426334. X
3. A kind of slag and remelting process for electroslag remelting of steel containing high titanium and low aluminum. Invention patent. ZL 2017 1 0030610. X
4. A method to improve the hot working performance of Mn18Cr18N steel. Invention patent. ZL 2016 1 0046190. X
5. Device and method for determining process parameters in electroslag remelting process with single power supply and double circuit. Invention patent. ZL 2015 1 1910525.5
6. A device and method used for dynamic observation and Simulation of droplet behavior in electroslag remelting process. Invention patent. ZL 2014 1 0624256. X
7. Preparation process of a color antibacterial stainless steel. Invention patent. ZL 2016 1 0143928.4